

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 13 JUL 2006

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Applicant's or agent's file reference WOP0312		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/GB2005/000677		International filing date (day/month/year) 23.02.2005		Priority date (day/month/year) 12.03.2004
International Patent Classification (IPC) or national classification and IPC INV. A47L9/00 A47L9/02				
Applicant DYSON TECHNOLOGY LIMITED				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  03.10.2005		Date of completion of this report  10.07.2006		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized officer  Cabral Matos, A  Telephone No. +31 70 340-2668		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2005/000677

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on
- ☒ the international application in the language in which it was filed
  - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3(a) and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4(a))
    - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1, 3-9 as originally filed  
2 filed with the demand

**Claims, Numbers**

1-16 filed with the demand

**Drawings, Sheets**

1/4-4/4 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,  
☒ claims Nos. 11

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):  
☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 11 are so unclear that no meaningful opinion could be formed (*specify*):

**see separate sheet**

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*).  
☐ no international search report has been established for the said claims Nos.  
☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:  
☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13*ter*.1(a) or (b) and 13*ter*.2.  
☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions, and such tables were not available to the International Preliminary Examining Authority in a form and manner acceptable to it.  
☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.  
☐ See separate sheet for further details

**INTERNATIONAL PRELIMINARY REPORT  
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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-10,12-16
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10,12-16
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10,12-16
	No: Claims	

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2. Citations and explanations (Rule 70.7):

**see separate sheet**

**Re Item III.**

Claim 11 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined.

Claim 11 attempts to define its subject matter by referring to the accompanying drawings without detailing the technical features it relates to, thereby rendering it impossible to establish an opinion with regard to novelty, inventive step and industrial applicability.

Furthermore, according to Rule 6.2(a) PCT, claims shall not, except where absolutely necessary, rely, in respect of the technical features of the invention, on references to the description or drawings.

**Re Item V.**

1 Reference is made to the following document:

D2: US-B1-6 345 407 (JUPP, S.C.) 12 February 2002 (2002-02-12)

2 INDEPENDENT CLAIM 1

2.1 The document D2 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document; cf. figure 3):

An attachment (30,32,34) for a cleaning appliance having a head (figure 3) and a neck (36), the neck (36) being adapted to be connected to the mouth of a wand (column 3, lines 42-45) or hose of the cleaning appliance and the neck (36) having a first portion (36) which, in use, lies alongside the mouth of the wand or hose and forms a first air passageway.

The subject-matter of claim 1 differs from this known attachment for a cleaning appliance in that the neck has a second portion which, in use, is spaced away from the mouth of the wand or hose so that a second air passageway separate from the

first air passageway is formed between the second portion of the neck and the mouth of the wand or hose.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

- 2.2 The problem to be solved by the present invention may be regarded as to provide an attachment for a cleaning appliance which is unlikely to become stuck to any surface on which the attachment is used. A further problem to be solved could be regarded as to provide an attachment for a cleaning appliance which is efficient to store on a vacuum cleaner.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT), because this solution is neither disclosed nor rendered obvious in the available prior art for solving the above defined problems.

- 2.2 Claims 2-10 and 12-16 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

surface on which the tool or attachment is used. It is a further object of the invention to provide an attachment for a cleaning appliance which is efficient to store on a vacuum cleaner.

- 5 The invention provides an attachment for a cleaning appliance having a head and a neck, the neck being adapted to be connected to the mouth of a wand or hose of the cleaning appliance and the neck having a first portion which, in use, lies alongside the mouth of the wand or hose and forms a first air passageway, characterised in that the neck has a second portion which, in use, is spaced away from the mouth of the wand or  
10 hose so that a second air passageway separate from the first air passageway is formed between the second portion of the neck and the mouth of the wand or hose.

- The provision of the second portion of the neck which, in use, is spaced away from the mouth of the wand or hose allows air to be bled into the wand or hose without passing  
15 through the attachment. This permanently reduces the suction developed at the mouth of the attachment and reduces the risk of the attachment sticking to a surface on which the attachment is used. The arrangement is simple and easy to manufacture and thus the costs involved in manufacture are reduced in comparison to other tools.

- 20 In a preferred embodiment, the second portion of the neck projects inwardly from the neck, which is preferably cylindrical. This reduces the minimum diameter of the neck which provides an advantage with regard to storage of the attachment, particularly when the attachment is stored on the hose or wand, since the attachment can be stored closer to the hose or wand than prior art attachments.

- 25 The invention also provides a combination of an attachment holder for a cleaning appliance, the cleaning appliance having a wand or hose, and at least one attachment according to the invention. The invention further provides a vacuum cleaner having a wand or hose and at least one attachment according to the invention.

- 30 Embodiments of the invention will now be described with reference to the accompanying drawings in which:

**CLAIMS**

1. An attachment for a cleaning appliance having a head and a neck, the neck being adapted to be connected to the mouth of a wand or hose of the cleaning appliance and the neck having a first portion which, in use, lies alongside the mouth of the wand or hose and forms a first air passageway, characterised in that the neck has a second portion which, in use, is spaced away from the mouth of the wand or hose so that a second air passageway separate from the first air passageway is formed between the second portion of the neck and the mouth of the wand or hose.

2. An attachment as claimed in claim 1, wherein, in use, the attachment further comprises a suction opening and the first air passageway extends from the suction opening to the mouth of the wand or hose.

3. An attachment as claimed in claim 2, wherein, in use, the second air passageway is open to the atmosphere at a location spaced from the suction opening.

4. An attachment as claimed in any one of claims 1 to 3, wherein the first portion of the neck is part-cylindrical in shape.

5. An attachment as claimed in any one of claims 1 to 4, wherein the second portion of the neck is part-cylindrical in shape.

6. An attachment as claimed in any one of claims 1 to 5, wherein the second portion of the neck projects outwardly from the first portion of the neck.

7. An attachment as claimed in any one of claims 1 to 5, wherein the second portion of the neck projects inwardly from the first portion of the neck.

8. An attachment as claimed in claim 7, wherein the second portion of the neck is planar.



9. An attachment as claimed in any one of the preceding claims, wherein the head has a portion which forms a continuous surface with the second portion of the neck.

5 10. An attachment as claimed in any one of the preceding claims, wherein the attachment is one of a brush tool, a stair tool and a crevice tool.

11. An attachment for a cleaning appliance substantially as hereinbefore described with reference to any one of the accompanying drawings.

10

12. The combination of an attachment holder for a cleaning appliance, the cleaning appliance having a wand or hose, and at least one attachment as claimed in any one of the preceding claims.

15 13. The combination of claim 12, wherein the attachment holder is adapted to be attached to the wand or hose of the cleaning appliance.

14. The combination of claim 12 or 13, wherein the attachment holder has a central wall and a plurality of tongues adapted and arranged to hold the second portions of the  
20 attachments against the central wall.

15. A vacuum cleaner having a wand or hose in combination with at least one attachment as claimed in any one of claims 1 to 11.

25 16. A vacuum cleaner having a hose or wand and the combination as claimed in any one of claims 12 to 14.